

In the Claims:

Please cancel claims 1-32 and add new claims 33 - XX as follows:

33. (New) A network switch, comprising:

a look-up table; and

an enhanced network driver receiving a first data packet received by the network switch from a network device and determining a port number of the network switch which received the first data packet and an address of the network device from the first data packet, the enhanced network driver storing the port number and the corresponding address in the look-up table, and wherein the enhanced network driver, when receiving a second data packet to be transmitted to the network device, determines the port number from which the second data packet is transmitted based on the address included in the second data packet and the corresponding port number stored in the look-up table for the address.

34. (New) The network switch according to claim 33, wherein the address is the MAC address of the network device.

35. (New) The network switch according to claim 33, wherein the enhanced network driver receives the first data packet from a network driver for the network switch.

36. (New) The network switch according to claim 33, wherein the enhanced network driver receives the second data packet from an upper level layer of the network switch.

37. (New) The network switch according to claim 33, wherein the address of the network device is determined by extracting the address from the first data packet.
38. (New) The network switch according to claim 33, wherein the enhanced network driver identifies a protocol of the first data packet and the first data packet is sent to an upper level layer based on the protocol.
39. (New) The network switch according to claim 33, wherein the enhanced network driver sets a port indicator to the port number corresponding to the address.
40. (New) The network switch according to claim 33, wherein, when the look-up table does not include a corresponding port number for the address, the enhanced network driver sets a port indicator to all port numbers of the network switch.
41. (New) The network switch according to claim 33, wherein the network switch is an Ethernet-type switch.
42. (New) A network device, comprising:
 - an enhanced network driver receiving a data packet from upper level layers,
 - inserting a source address in the data packet and determining the destination address for the data packet, the enhanced network driver being independent of any hardware services for the network device; and

a control interface communicating control information from the upper level layers to a hardware device driver, the control interface being independent of any data packets in the network device and including a plurality of object definitions.

43. (New) The network device of claim 42, wherein each of the object definitions is one of a Management Information Base object definition and a user defined object definition.
44. (New) The network device of claim 42, wherein the communication of the control information by the control interface includes receiving a request from the upper level layers, accessing the object definition corresponding to a hardware device included in the request and passing the request to the hardware device driver.
45. (New) The network device of claim 44, wherein the communication of the control information further includes receiving a response to the request from the hardware device driver and passing the response to the upper level layers.
46. (New) The network device of claim 42, wherein the network device is one of a network switch, a network interface card, a router, an internet appliance and a personal computer.
47. (New) A method for processing a data packet, comprising the steps of:
 - receiving the data packet at a hardware device driver;
 - passing the data packet to an enhanced network driver, the enhanced network

driver being independent of any hardware device functionality;

processing the data packet by the enhanced network driver, the processing including the determining of a source address of the data packet and a port number of a hardware device which received the data packet;

storing the source address and the corresponding port number in a look-up table;

identifying a protocol type of the data packet; and

passing the data packet to an upper level layer based on the identified protocol type.

48. (New) The method of claim 47, wherein the source address is a MAC address.

49. (New) The method of claim 47, further comprising the steps of:

receiving a second data packet at the enhanced network driver from one of the upper level layers;

determining if the second data packet has a broadcast destination; and

addressing the second data packet to be transmitted from all data ports of the hardware device.

50. (New) The method of claim 49, further comprising the steps of:

determining a destination address of the second data packet;

determining if the destination address is stored as a source address in the look-up table; and

directing the second data packet to the port number corresponding to the source address in the look-up table when the destination address matches the source address.

51. (New) The method of claim 47, wherein the protocol type is an Internet Protocol.